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ABSTRACT

This document presents discussions of current research and activities by experts in early intervention and behavior disorders. It offers a range of evidence-based strategies, procedures, and models appropriate for prevention and early intervention programs with young children at risk for emotional and/or behavioral disorders. Following an introductory chapter, chapter 2, "Functional Behavioral Assessment in Early Childhood Settings: A Model for Linking Assessment Information to Intervention" (Carol Ann Davis and Maureen A. Conroy), discusses a systematic method of assessing classroom variables linked to problem behaviors and the development of behavioral support plans. The third chapter is titled "Engaged Supervision To Support Evidence-Based Practices for Young Children with Challenging Behavior" (Philip S. Strain and Gail E. Joseph) and presents supervising strategies that staff can use in early childhood classrooms to decrease challenging behaviors. The fourth chapter, "Evidence-Based Peer Interaction Interventions for Preschool Children" (William H. Brown and others), describes an intervention hierarchy for promoting peer-related social competence. In the fifth chapter, "Reducing Challenging Behaviors in Young Children" (Melissa L. Olive and others), the authors compare effects of parent- and teacher-implemented assessment-based interventions for young children with challenging behaviors. The final chapter, "An Examination of Early Intervention/Prevention Research with Children at Risk of Emotional and Behavioral Disorders" (Peggy P. Hester and others), summarizes critical factors in early intervention/prevention research with children at risk for development of emotional/behavioral disorders. (Contains approximately 100 references.) (DB)



From the Fifth CCBD Mini-Library Series: Meeting the Diverse Needs
of Children and Youth with E/BD: Evidence Based Programs and Practices

Prevention and Early Intervention for Young Children at Risk for Emotional or Behavioral Disorders

Maureen A. Conroy
Editor

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& Kristine J. Melloy, *Series Editors*

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Maureen A. Conroy, Editor
University of Florida

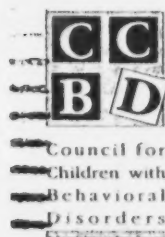


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About the Council for Children with Behavioral Disorders



CCBD is an international and professional organization committed to promoting and facilitating the education and general welfare of children and youth with behavioral and emotional disorders. CCBD, whose members include educators, parents, mental health personnel, and a variety of other professionals, actively pursues quality educational services and program alternatives for persons with behavioral disorders, advocates for the needs of such children and youth, emphasizes research and professional growth as vehicles for better understanding behavioral disorders, and provides professional support for persons who are involved with and serve children and youth with behavioral disorders.

In advocating for the professionals in the field of behavioral disorders, CCBD (a division of The Council for Exceptional Children) endorses the Standards for Professional Practice and Code of Ethics adopted by the Delegate Assembly of The Council for Exceptional Children in 1983.

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Contents

Foreword	v
1. Introduction	1
2. Functional Behavioral Assessment in Early Childhood Settings: A Model for Linking Assessment Information to Intervention	3
<i>Carol Ann Davis, University of Washington and Maureen A. Conroy, University of Florida</i>	
Overview of Functional Behavioral Assessment and Young Children	4
Assessing the Classroom to Promote Positive Behavior and Reduce Challenging Behaviors	5
Conclusion	11
3. Engaged Supervision to Support Evidence- Based Practices for Young Children with Challenging Behavior	13
<i>Phillip S. Strain and Gail E. Joseph, University of Denver</i>	
Supervisory Strategies	14
Conclusion	21
4. Evidence-Based Peer Interaction Interventions for Preschool Children	23
<i>William H. Brown, University of South Carolina, Maureen A. Conroy, University of Florida, and Samuel L. Odom, Indiana University</i>	
Developmentally Appropriate Practices and Inclusive Early Childhood Programs	25

Affective Interventions for Improving Young Children's Attitudes	26
Conclusion	30
5. Reducing Challenging Behaviors in Young Children	33
<i>Melissa L. Olive, Dawn Dokken, and Mandy Jenkins, The University of Texas at Austin</i>	
Comparison of the Results of Teacher-Implemented, Parent-Implemented, and Researcher-Implemented Interventions on Challenging Behaviors	35
Conclusion	38
6. An Examination of Early Intervention/Prevention Research with Children at Risk of Emotional and Behavioral Disorders	41
<i>Peggy P. Hester, Heather M. Baltodano, Robert A. Gable, and Stephen W. Tonelson, Old Dominion University</i>	
<i>Jo M. Hendrickson, University of Iowa</i>	
Identifying the Target Population	43
Implementation Issues	44
Longitudinal Outcomes	46
Conclusion	47
References	49

Foreword

Today, we find ourselves in the midst of difficult and uncertain times. Circumstances place some at greater risk than others. For example, a rapidly changing political and economic climate poses threats to children and youths who manifest noncompliance, antisocial behavior, or acting-out behavior. In addition, it is clear that recent federal legislation (i.e., No Child Left Behind and the Individuals with Disabilities Education Act) will have a major impact on the landscape of both general education and special education. Both of these Acts contain a number of positive provisions; however, they also have raised questions among those who serve students identified as *emotionally disturbed*, *behaviorally disordered*, or *emotionally and behaviorally disordered*. The long-term ramifications are difficult to predict, but there is little doubt that there will be far-reaching effects on the preparation of special education personnel, the nature and scope of programs and services they provide, and the specific population of students they serve.

In light of mounting challenges to serving children and youths with emotional and behavioral disorders (E/BD), it is good to know that there are a growing number of practices that have compelling empirical evidence for their effectiveness. The Council for Children with Behavioral Disorders (CCBD) is committed to putting established practices in the hands of its members and supporting efforts to increase the quality of the education and treatment of students with E/BD and their families. The authors of this series discuss in detail a range of evidence-based strategies, procedures, and models that are appropriate for early intervention programs, public and private schools, day and residential treatment programs, correctional

facilities, and other settings in which are students with E/BD are educated.

The following seven volumes comprise the Fifth Mini-Library Series on children and adolescents with E/BD. Their content stems from the 2003 international conference sponsored by the Council for Children with Behavioral Disorders:

- *Critical Issues Facing Youths with Emotional and Behavioral Disorders During Transition to Adulthood* by Mary E. Morningstar and Debra Benitez
- *Inclusive Education for Children and Youths with Emotional and Behavioral Disorders: Enduring Challenges and Emerging Practices* by Beverley H. Johns, Eleanor C. Guetzloe, Editors, and others
- *Differentiating Curriculum and Instruction on Behalf of Students with Emotional and Behavioral Disorders Within General Education Settings* by Carol Ann Davis, Kathleen L. Lane, Kevin Sutherland, Phillip L. Gunter, R. Kenton Denny, Phillip Pickens, and Joseph Wehby
- *Educating Juveniles with Disabilities in Correctional Settings* by Joseph Calvin Gagnon and Matthew J. Mayer
- *Establishing Exemplary Personnel Preparation Programs for Teachers of Students with Emotional and Behavioral Disorders: Partnerships with Schools, Parents, and Community Agencies* by Alec F. Peck, Sandy Keenan, Douglas Cheney, and Richard S. Neel
- *Serving Culturally and Linguistically Diverse Students with Emotional and Behavioral Disorders* by Festus E. Obiakor, Stephen Enwefa, Cheryl Utley, Sunday O. Obi, Nomsa Gwalla-Ogisi, and Regina Enwefa
- *Prevention and Early Intervention for Young Children at Risk for Emotional and Behavioral Disorders* by Maureen A. Conroy, Editor, and others

In putting together this series, we have relied on the knowledge and skill of a diverse group of dedicated professionals, each of whom is directly involved in the education and treatment of children and youths with emotional and behavioral disorders. We are grateful that they were willing to share their time and expertise and are confident that their work will contribute to improving the quality of intervention efforts for these students.

Lyndal M. Bullock
University of North Texas

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Kristine J. Melloy
University of St. Thomas

Series Editors

Introduction

1

Early intervention is one of the most critical issues facing the field of emotional or behavioral disorders (E/BD). Recently, we have seen a startling increase in the number of young children who demonstrate challenging behaviors in early childhood settings (Briggs-Gowen, Carter, & Skuban, 2001; Kaiser, Cai, Hancock, & Foster, 2002). Many of these young children are at risk for later being identified as having E/BD (Forness et al., 1998). The development of E/BD appears to be progressive, with multiple determinants including children's early exposure to a number of child risk factors (Hester & Kaiser, 1998; Lewis, 1996; Reeve & Carr, 2000), family risk factors (Shaw, Winslow, & Owens, 1998), and school risk factors (Webster-Stratton, 1993).

Specifically, researchers have indicated that young children who demonstrate delays in communication and social development are more likely to develop chronic challenging behaviors (Hester & Kaiser, 1998; Kaiser et al., 2002). Family risk factors such as poverty (Briggs-Gowen et al., 2001), family stress (Shaw et al., 1998), and parenting deficits (Kaiser & Delany, 1996) are also related to the future development of behavior problems (Hester & Kaiser, 1998). Finally, researchers have suggested that school risk factors, including coercive teacher-child interactions (Gunter, Denny, Jack, Shores, & Nelson, 1993) and school climate, may contribute to the development of problem behaviors (Hyman & Perone, 1998; Webster-Stratton, 1993).

While no single risk factor causes E/BD, research does suggest that children exposed to a high number and a combination of risk factors

are more likely to demonstrate problem behaviors in early childhood and eventually be identified with behavioral disorders (Webster-Stratton, 1996). Unfortunately, most of the young children who demonstrate challenging behaviors are not formally identified and/or treated until much later (Del'Homme, Kasari, Forness, & Bagley, 1996). Given the data on the prevalence, development, and delay in identification of E/BD, there is a need for further development of policies and practices that promote early detection and prevention of behavior problems in these young children.

This monograph contains a series of discussions on current research and activities by experts in the fields of early intervention and behavioral disorders. In Chapter 2, Davis and Conroy discuss a systematic method of assessing classroom variables linked to problem behaviors and the development of behavioral support plans that address those behaviors. In Chapter 3, Strain and Joseph present supervising strategies that staff can use in early childhood classrooms to decrease challenging behaviors. In Chapter 4, Brown, Conroy, and Odom describe an intervention hierarchy for promoting peer-related social competence. In Chapter 4, Olive and her colleagues compare the effects of parent- and teacher-implemented assessment-based interventions for young children with challenging behaviors. Finally, in Chapter 5, Hester and her colleagues summarize critical factors in early intervention/prevention research with children at risk for developing E/BD.

Our challenge as a field is to develop multilevel, comprehensive service delivery systems for young children at risk for the development of emotional or behavioral disorders within our own communities. We hope that this monograph will be useful to early childhood educators and help to guide the future development of these services.

2

Functional Behavioral Assessment in Early Childhood Settings

**A Model for Linking Assessment
Information to Intervention**

*Carol Ann Davis
University of Washington*

*Maureen A. Conroy
University of Florida*

The literature on the use of functional assessment to develop positive behavior support plans is abundant. Many books, research articles, and practitioner-directed articles have been published to promote the use of functional behavioral assessments; our intent is to outline a proactive, systematic framework for teachers to consider when developing a plan to prevent and remediate challenging behaviors of young children in the classroom setting. While the literature offers researchers and practitioners a user-friendly and

technically adequate method for designing positive behavior support plans, it does not offer teachers any systematic model for effectively assessing and implementing interventions for groups of children. The framework outlined in this chapter, like traditional positive behavior support plans, relies on the assessment and subsequent identification of variables that are likely to influence and prevent problem behavior. In addition, this framework considers the level of intrusiveness of the intervention and the amount of teacher time necessary to conduct assessments and implement interventions. What follows is a discussion on the classwide assessment and intervention process for developing positive behavior support plans.

Overview of Functional Behavioral Assessment and Young Children

Although most practitioners have taken a course in behavior management, the recent literature in the area of interventions for problem behavior emphasizes the use of a functional behavioral assessment (FBA) to design a positive behavior support plan more effectively and efficiently. For example, Susan has decided to use time out from positive reinforcement as an intervention for every child who disrupts the classroom. However, Samantha throws materials because she does not want to participate in the small group (i.e., she engages in problem behavior to escape an activity). If Susan uses time out, she will be increasing the likelihood that the next time we ask Samantha to paint, she will throw the materials again. That is, Susan will be reinforcing the problem behavior. As teachers, we would eventually recognize that time out is not an effective intervention in this case and change interventions.

We have come to know FBA as a process whereby different assessment strategies are used to identify factors that are related to the occurrence of problem behaviors (Davis, 1998). The literature has provided practitioners with many strategies that, when used in combination, are effective in determining the functions of a behavior (see O'Neill, Horner, Albin, Sprague, Storey, & Newton, 1997, for a comprehensive functional assessment process). While these

strategies assist practitioners in determining the function of the challenging behavior, many are time consuming. For example, one of the most widely used measures is the Functional Analysis Interview (O'Neill, Horner, Albin, Sprague, Storey, & Newton, 1997). The interview alone may take up to one and one-half hours to complete. This information is then used to facilitate more accurate and efficient direct observation strategies, which, if done correctly, may take several days to a week.

While time and staffing alone are not reason enough to discourage the use of interviews, as practitioners and service providers we should examine the necessity and efficiency of any time- and staff-intensive assessments. That is, is it necessary for this level of assessment (i.e., analyzing the antecedents and consequences) to be conducted on each student exhibiting behavior problems, or do we reserve such strategies for children with more intensive and severe problem behaviors? We suggest that practitioners should consider developing a positive behavior support plan including FBA (identifying variables that may increase the probability of problem behavior), the broad framework of classroom management, effective teaching, and developmentally appropriate practices that reflect a proactive approach to preventing problem behavior.

Assessing the Classroom to Promote Positive Behavior and Reduce Challenging Behaviors

Assessing the Physical and Programmatic Variables in the Classroom

According to the early childhood literature, the classroom environment plays an important part in the development of skills and persistence of behavior. We generally think of variables in the classroom in four categories: physical space, materials, schedule, and staffing patterns. The influence of arrangement of physical space on the children's behavior has been well documented. For example, the number of students in a given area (Bailey, Clifford, &

Harms, 1982) and the amount of space per child (Fagot, 1977) can influence a child's positive behavior. Arranging other physical variables—for example, placing students away from high traffic areas, placing students where they will face away from areas of distraction, and ensuring that the room temperature and lighting are appropriate for the activity—can all contribute to positive student behavior.

Materials have also been found to influence young students' behavior. For example, too many materials (Bailey et al., 1982) and the type of materials (Martin, Brady, & Williams, 1991) can increase the probability of problem behavior. In addition, preference for materials (e.g., does the child like using markers better than crayons for coloring?), novelty of materials (e.g., have we repeatedly asked the child to participate in the same activity?), and accessibility of materials (e.g., can the child access the materials without interrupting other children?) all influence whether or not appropriate interactions and behaviors will occur.

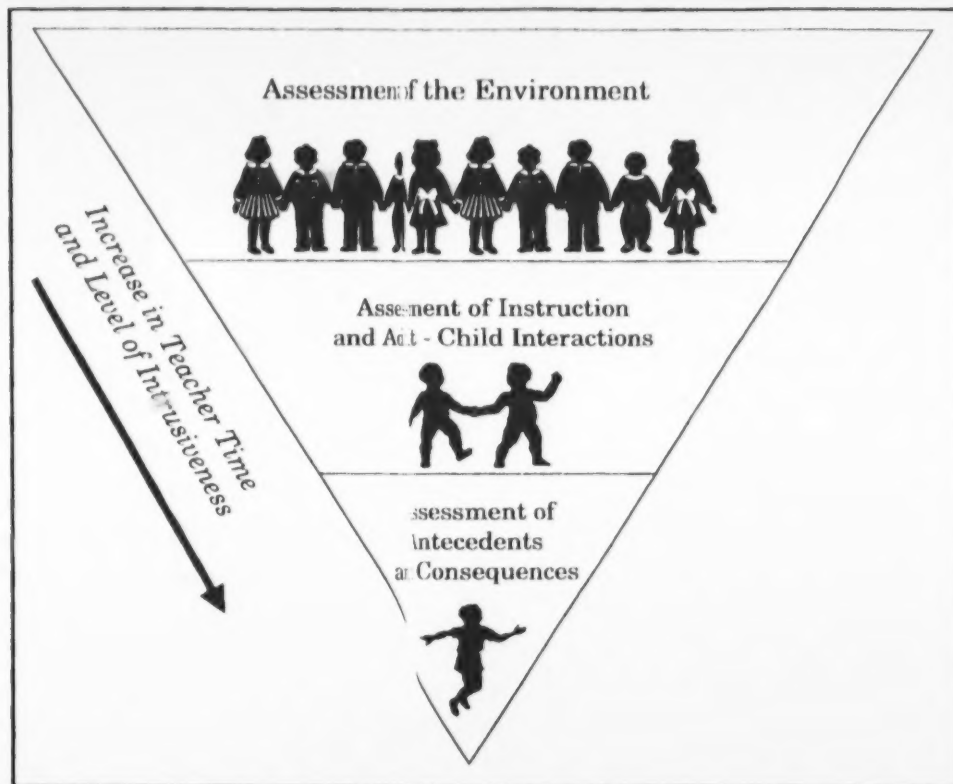
Scheduling activities and transitions are important factors to consider in facilitating positive behavior. Krantz and Risley (1977) reduced problem behavior and increased engagement by scheduling a quiet activity between recess and independent seatwork. The daily activity schedule may also contribute to higher levels of problem behavior. For example, scheduling activities that require children to be attentive one after the other (e.g., circle, small-group work, large-group work) should be avoided. For young children in preschool, 20 minutes of attentive listening and following directions is a long time. When several of these activities are scheduled one after the other, the probability that problem behavior will occur grows exponentially. Accordingly, it is best to alternate activities that require sitting and listening with activities that allow for movement. Transitions are also a critical component of a class schedule and can contribute to problem behaviors. Transitions that are not planned can lead to students' waiting and loss of instructional time. All transitions should be planned, and schedules should reflect those times.

If we know what factors account for the greatest variability in student behavior, then assessing our classrooms in relation to these factors can contribute to plans for reducing problem behavior. The first step in this assessment and intervention framework is to assess the environment to identify variables related to challenging behavior in the classroom (see Figure 1). Since changes in the environment will affect all children in the classroom, this first assessment and intervention (i.e., changes in the environment) will influence the frequency of problem behavior for all children. These interventions can be considered universal in that all children will benefit from an appropriate classroom environment. If, by assessing the environment, we identify a problem in one of the areas that increases behavior problems in the classroom, we can develop an intervention (i.e., change the environment) that directly addresses the environmental deficit. Interventions based on this type of assessment can promote appropriate behavior for all children in the classroom and may reduce the need for teachers to conduct more traditional FBAs for some children.

Wolery, Bailey, and Sugai (1988) developed a checklist to assist practitioners in assessing whether or not an environment facilitates appropriate behavior and skill development. After using this tool to evaluate the environment, teachers can modify the physical arrangement of the classroom, the materials being used, the schedule, and/or staffing patterns to address areas of need (see Figure 1). What follows is a brief illustration of the application of the checklist.

In a Head Start classroom of eighteen 4 to 5 year olds, the teacher and staff had identified five children who needed more intensive behavior support and referred them for further evaluation by the school psychologist. At the same time, the teacher completed the environmental checklist to identify environmental variables in the classroom that might be contributing to problem behavior in the classroom. Based on the results of the checklist, the staff identified several environmental variables that might influence problem

Figure 1. Variables Relating to Challenging Behavior in the Classroom



behavior. The teachers intervened by changing the classroom to incorporate a system that limited the number of children in any one center. For two of the children, problem behavior was eliminated entirely by simply limiting the number of children in a small area. Other options were deemed appropriate for the other children.

Assessing the Instructional and Interactions in the Classroom

Providing children with learning opportunities and appropriate instructional content and delivery are important factors in skill development. Research shows that skill level can be linked to problem behavior (Wehby, Symon, Canale, & Go, 1998). That is, problem behavior is sometimes a function of skill deficits. Many times, we can address inappropriate behavior by simply modifying the instructional opportunities (the way in which instruction is pro-

vided to students. There are many modifications and general recommendations about instructional delivery that should guide our practice. First, instruction and its content should be relevant, meaningful, and functional for the child. This is the premise behind the activity-based instruction model (Bricker & Cripe, 1992) and the building blocks model (Sandall, Schwartz, & Joseph, in press) in the early childhood literature.

In addition to the development of a solid early childhood curriculum, other variables related to instruction can significantly impact a child's behavior. These variables include increasing the learning opportunities provided to the child; maintaining or increasing the child's rate of correct responses during instruction (Gunter, Hummel, & Conroy, 1998); and providing immediate, consistent, and specific feedback during instruction (Bailey & Wolery, 1992). Providing instruction that attends to these variables not only increases the probability of the child getting the answer correct in the future, but also decreases the chance that the child will become frustrated over repeated errors without assistance or feedback. The accumulated literature also identifies other variables related to instructional delivery that may influence problem behavior. For example, task length, task preferences, and the amount of praise delivered during instruction have all been found to influence problem behavior.

While there is no one single assessment tool to assist teachers in evaluating these variables to determine whether or not they are influencing problem behavior, we have combined information from various sources to develop a guide to assessing instruction (Wolery, Bailey, & Sugai, 1988). By evaluating instruction in the classroom and identifying whether or not these variables are present during instruction or whether they may specifically influence a few children, teachers can modify their instruction to prevent problem behavior. For example, the staff in the Head Start classroom evaluated the instruction delivered in the classroom and found that many of the children were having a difficult time during small-group instruction. The children typically participated, but after 25 minutes they began engaging in problem behavior. The staff reduced the

small-group time to 20 minutes and immediately saw a reduction in problem behavior for two of the children.

Assessing the Antecedents and Consequences in the Classroom

The research on FBA has primarily focused on assessment strategies that identify the immediate antecedents to and consequences of problem behavior. These assessment strategies are typically classified into two groups, indirect and direct assessment measures. The measures most widely used by practitioners are indirect measures, including the Functional Analysis Interview (O'Neill, Horner, Albin, Sprague, Storey, & Newton, 1997), the Motivation Assessment Scale (MAS) (Durand & Crimmins, 1992), and a review of the historical records of the child. Although these indirect measures can be time consuming, they are easier to complete than direct observation assessments. However, researchers recommend that both indirect assessment and direct observation measures be conducted to gather sufficient information for developing hypotheses about the function (or purpose) of the behavior (O'Neill, Horner, Albin, Sprague, Storey, & Newton, 1997). The most common direct observation measures include the scatter plot (Touchette, MacDonald, & Langer, 1985); the Functional Analysis Direct Observation Form (O'Neill, Horner, Albin, Sprague, Storey, & Newton, 1997); the Antecedent, Behavior, Consequence Chart (Sulzer-Azaroff & Mayer, 1986); and experimental manipulation or hypothesis testing (O'Neill, Horner, Albin, Sprague, Storey, & Newton, 1997; Reichle & Johnson, 1993). Use of these measures allows the practitioner to validate the information provided in the interview or in various scales in which bias may be present.

A full description of each of these assessment protocols is beyond the scope of our discussion but can be found in the work of O'Neill and his colleagues. For children with chronic and severe behavior problems, we recommend that the full protocol be used (i.e., both indirect and direct measures). As suggested within this framework, when practitioners attend to and modify environmental and

instructional variables, it may not be necessary to complete a traditional FBA for all children who engage in problem behavior. In the Head Start classroom, it was only necessary for us to conduct an FBA for one child when we initially had anticipated conducting an FBA for five children.

Conclusion

This chapter provided an overview of a multilevel framework that responds to the initiatives of The Individuals with Disabilities Education Act (IDEA; 1997) disciplinary provisions and the use of functional behavioral assessment with preschool-aged children who demonstrate challenging behaviors. As demonstrated in the example of the Head Start classroom, the time-intensive use of the strategies involved in a typical FBA (i.e., identifying antecedents and consequences) might be necessary for some children. However, by assessing the environmental and instructional components of the classroom and making changes based on these preliminary assessments, the teachers saw decreases in problem behaviors and increases in appropriate behavior for some of the children, thus reducing the need for more intensive measures. Had the teachers referred all of the children in the classroom who exhibited problem behavior for a traditional FBA (i.e., both indirect and direct measures) the process would probably have been too cumbersome and most likely would not have been conducted on any of the children. The use of this multilevel framework of FBA allowed the teachers to first conduct assessments and implement strategies that were less time consuming, less intrusive, and beneficial for all of the students. In the long run, this method of assessment increased the amount of instruction offered by the teachers and promoted longer periods of engaged time for the children.

Although the law requires that an FBA be conducted on children who engage in problem behavior, it may be more appropriate and proactive for us to broaden our perspective of functional assessment to meet the needs of all students and promote positive behavior. The

framework we outlined in this chapter is an attempt to facilitate the use of FBA strategies within the classroom in a proactive and efficient manner to prevent and remediate the needs of young children who exhibit or are at risk for behavioral disorders.

Engaged Supervision to Support Evidence- Based Practices for Young Children with Challenging Behavior

*Phillip S. Strain and Gail E. Joseph
University of Denver*

Challenging behavior is a growing concern in the field of early childhood care and education. In recent years, for example, Head Start staff have reported an increase in challenging behaviors such as aggression, noncompliance, poor self-control, and problematic social relationships in young children (McCabe, 1997; Yoshikawa & Knitzer, 1997; Yoshikawa & Zigler, 2000). More than one fourth of the children served in Head Start programs present externalizing behavior problems in the clinical ranges (Jones-Harden, Winslow, Kendziora, Shahinfar, Rubin, et al., 2000; Webster-Stratton & Hammond, 1998). Utilizing direct behavioral observation, Webster-

Stratton and Hammond (1997) found that one third of the young children in several Head Start classrooms engaged in a problem behavior once every 6 minutes. This means at least 36 times in an hour a problem behavior was occurring in the classroom.

These circumstances have an impact on the mental health of early care and education professionals. In our survey of 346 early childhood educators, 73% felt that challenging behaviors in their settings were increasing. In addition, 70% of the respondents said that dealing with challenging behavior made them feel stressed, and more than 60% claimed that challenging behavior had a negative impact on their job satisfaction. It is also significant to note that 40% of the respondents indicated that they asked at least one child to leave their program in the previous year due to challenging behavior (Joseph, Strain, & Skinner, 2003).

When teachers and systems are stressed and stretched by increasing numbers of children who engage in increasing levels of severe problem behaviors, supervisory personnel also experience negative consequences. These consequences include teacher burnout and turnover, parental complaints (both formal and informal), budgets being squeezed by more costly placements, and supervisors' personal and professional efficacy being questioned by higher-level administrators. Another consequence (a "great opportunity" consequence) is that direct service staff members often turn to supervisors for help in these circumstances. The opportunity is not only to be helpful with problem behavior but also to lay a general foundation of mutual trust, respect, and problem-solving capability that can serve many outcomes and purposes. In this chapter, we outline some of the supervising strategies that can help staff with the implantation of evidence-based practices.

Supervisory Strategies

Acknowledge Feelings

As we mentioned previously, almost all teachers occasionally feel stressed, angry, disrespected, ineffective, and guilty when working

with children with challenging behavior. It is essential that a supervisor begin a process of change by acknowledging the staff members' feelings. The purpose of acknowledging these feelings is to help teachers identify (a) some of the negative thoughts and self-talk they engage in that increases stress and (b) how to replace these thoughts with more coping and positive responses. We have adapted the following steps to help teachers accomplish this from Webster-Stratton (1999):

Step One: Be aware of negative feelings and thoughts. Unless teachers learn to pay attention to their thoughts, they will not be able to change them.

Step Two: Decrease negative thoughts. This can be accomplished by using the following four strategies:

1. Use thought interruption. As soon as you realize you are experiencing a negative thought, stop the thought. Think to yourself, "I am going to stop worrying. Worrying doesn't help me." Or, "I am going to stop thinking that way about him. These thoughts won't help me be a better teacher."
2. Step back from the situation. Ask yourself while in the midst of dealing with a child's challenging behavior whether what you are thinking or doing is helpful in reaching your goal:
 - a. What is my goal? (For this child to stop screaming during circle time.)
 - b. What am I doing now? (Feeling frustrated and mad.)
 - c. Is what I'm doing helping me reach my goal? (No, I am just giving them attention with my incredulous stare.)
 - d. If it isn't, what do I need to do differently? (Start thinking some coping thoughts and come up with a plan for when this happens tomorrow.)
3. Normalize the situation: Remember that all teachers have bad days and bad activities, all children display challenging behav-

ior at times, and all teachers experience these same negative feelings from time to time. It is normal.

Step Three: Increase your positive thoughts. Decreasing the number of negative thoughts won't help unless you also increase the positive ones. One way to accomplish this is to substitute calming or coping thoughts for the negative ones. If you find yourself thinking about a particular child in hostile terms ("She is out to get me"), then stop the thought and try to substitute thinking that emphasizes your ability to cope ("I don't like it when she acts that way, but I can handle it. My job is to teach her more appropriate ways to behave").

By listening to, acknowledging, and providing some strategies to decrease stress, the supervisor communicates both an understanding of and appreciation for the staff members' concerns about challenging behavior. While many supervisors may want to move ahead and focus on staff behavior change, we believe this feeling-acknowledgment phase is the foundation for later success.

Develop a Mission Statement

In our experience, an essential step in bringing about positive change with staff members is the collaborative development of a mission statement regarding the treatment and approach to working with children with challenging behavior and their families (Jones & Nimmo, 1999).

It is vitally important that mission statements be developed not by the administrator or an exclusive set of staff members, but collaboratively with the entire program team. This team includes parents, teachers, paraprofessionals, related service staff, the cook, the school nurse, the social worker, the receptionist, and so forth. As one might expect, such a process cannot be accomplished in one or even two meetings. Indeed, it is a lengthy process, but one with many positive outcomes. Among these are (a) the team-building experience allows staff members to feel more connected and supported; (b) problems and grievances are discussed in a safe, public forum; (c) the supervisor's leadership is highlighted as he or she facilitates the process; and (d), a living document is developed with the buy-in of

the entire team. The work is not finished with a document. The mission statement is revisited often, based on it, decisions are made, and as new staff members and families join the program they are oriented to the statement and the process for developing it.

Adopt a Problem-Solving Attitude

A natural outcome of the process and product described above is the adoption of an attitude toward working with children with challenging behavior as a problem that needs to be solved, not gotten rid of. Helping staff members to view the situation as one with solutions is a key supervisory technique (Delaney, 2001). Asking teachers, "What have you tried?" and acknowledging their intellect and effort in tackling the problem is a first step. Next, you should ask whether they would like help either in implementing the solutions they have generated or in generating others.

Another approach to fostering a problem-solving attitude is to establish peer support opportunities. At a school one of the authors used to work in, there was a time and place offered once a week where staff members could meet to present problems and the data they collected on the effectiveness of the solutions. Within this forum, staff could receive both validation of their efforts and additional ideas from their peers. While the supervisor was present at these meetings, teachers led the sessions.

Find a Place to Begin

One of the most effective ways to create an individualized program of training is to have teachers and their supervisor begin with a thorough assessment of evidenced-based practices related to challenging behavior. One such self-assessment that supervisors and technical assistance providers have found helpful is shown in Figure 1.

We recommend that the supervisor facilitate the self-assessment process by helping to define practices, asking for evidence of implementation, and reconciling discrepancies of opinion among team members. Because of the instructive nature of this exercise, the self-

assessment alone can result in desired behavior change by staff. The supervisor's active participation in and guidance of this process is necessary in order to avert a number of potential miscalculations that often occur. For example, we have found that competent teachers may in fact rate themselves too harshly on items and less competent teachers tend to think that they know more than they do.

As indicated in the sample page from a comprehensive self-assessment shown in Figure 1, items rated low by the team become targets for systematic training and support from the supervisor (the full self-assessment is available from either author). After a period of training and support on these items the team should reconvene to revisit the self-assessment. This revisiting process offers an opportunity to celebrate successes and to identify new training targets. Our strong recommendation is that this iterative process becomes the pivotal piece of the teachers' official job evaluation.

Be Engaged

A device we have found useful for supervisors is to think about their primary job function as one of being actively engaged. We have captured this concept in the following acronym:

Examine practice.
No rejection.
Get real.
Adopt a problem-solving attitude.
Guarantee fun.
Empathize.
Deliver reinforcement.

As many of our prior suggestions indicate, it is often necessary to initiate a process of change by examining one's practices. We have also suggested that a no- or zero-reject ethos is critical to being successful with challenging behavior. Our "Get real" charge suggests that the self-reflection and vision development processes require a thoroughly open, honest, and frank exchange of ideas and opinions. Getting real also requires a realistic analysis of any logistical barriers at the program level that may interfere with the use of evidence-

Figure 1. Sample Page from a Self-Assessment Form

Teaching Team: Julie, Camille, Kelly & LJ Supervisor: Margaret Claussen Time 1: Oct. 3, 2003 Time 2: _____

Classroom Arrangement	Time One			Evidence	Time Two			Evidence
	1	2	3		1	2	3	
1. The classroom has clearly defined and well-equipped learning centers. The number of children allowed in a center is limited, with visual reminders of how many children are allowed.	①	2	3	We do not limit the number of children in areas.	1	2	3	
2. Materials are in good working order and have specific storage areas.	1	②	3	Some puzzles have lost pieces and some switch toys are not working.	1	2	3	
3. A variety of materials are available so that children of all skills level have something to play with.	1	2	③	We have a variety of toys and materials from developmental age 18 mos to 7 years.	1	2	3	
4. Toys that promote social interaction are present in all learning centers.	1	②	3	We have a teeter-totter - but that is all.	1	2	3	
5. A systematic toy rotation plan is in effect to increase novelty and engagement.	①	2	3	We do not use a toy rotation system.	1	2	3	
6. There is a visual cue provided to children to signal when an area or activity is open or closed.	1	2	③	We cover closed areas with sheets.	1	2	3	
7. Children are visible at all times. Shelving is no higher than 48" high.	1	2	③	All of our shelving is under 4' and we can see all the children.	1	2	3	
8. The environmental arrangement supports the traffic flow of children entering, and participating actively throughout the day.	①	2	3	Children have to walk across the room to put their things away and then back to sit down for breakfast - always causing problems!!	1	2	3	

based practices. For example, lack of planning time, limited material resources, and minimal time for quality professional development may need to be addressed if staff members are expected to produce real changes in their behavior and in children's behavior as well. Adopting a problem-solving attitude doesn't just apply to teachers, it applies also to supervisors. Effective supervision in the early intervention field often involves the need to generate multiple and unique solutions to logistical barriers such as those we have mentioned.

In programs that deal with high levels of challenging behavior, a sense of humor is a valuable commodity (Gruenberg, 1998). The type of humor we are referring to allows us to laugh at ourselves and help others see the humorous and light side of different situations. Supervisors can also help create a fun work environment by embedding a variety of team-building activities into the daily schedule.

Knowing that dealing with challenging behavior leads to stress and knowing that behavior change can be a lengthy process, it is essential that supervisors learn what teachers need from them to feel supported and understood. Knowing the individualized supports and delivering on them is the best way, we feel, to ensure that staff members experience the supervisor as an empathetic ally. Our experience has been that when supervisors directly ask, "How can I support you?" they receive varied and highly personal answers. One teacher might want the supervisor to be in the room more frequently. Another teacher might want the supervisor to check in over the phone. Yet another might want the supervisor to model specific strategies before the teacher tries them.

Finally, supervisors need to engage in behaviors that reinforce teachers' behavior change. As in the empathy example just given, individualization is key. For example, supervisors have successfully used the following strategies to build and maintain teachers' instructional skills: employee of the month, certificate of acknowledgment, edibles (especially chocolate), gift certificates for classroom supplies, public acknowledgment, and praise.

Conclusion

In this chapter, we have suggested that dealing with challenging behavior is a stress-inducing enterprise. It is also an enterprise that creates many challenges for supervisors. Some of the more common supervisory challenges include teachers wanting a certain child or children removed from the classroom; staff members experiencing high degrees of stress and other negative feelings; teachers continually using ineffective strategies to manage challenging behavior; staff members feeling overwhelmed with mandates and then viewing new teaching strategies as one more thing to do; staff members not following through on suggestions to implement evidence-based practices; and staff members demonstrating resistance to change and bad attitudes.

We have also suggested that supervisors can ameliorate these problems by acknowledging the associated feelings and stress related to working with children with chronic challenging behavior; collaboratively developing a mission statement that reflects a zero-reject philosophy; adopting and fostering a problem-solving attitude in themselves and their staff; using an inventory or assessment of evidence-based strategies as a starting point for determining the teaching teams' strengths and targets for training; and becoming an **ENGAGED** supervisor.

While we have made great strides in the last decade in understanding the environmental events that maintain problem behavior in young children and in delivering highly prescribed interventions, we are far from having this technology adopted and used throughout early education settings. In this chapter we have suggested that one of the key solutions to the implementation problems lies in the actions and attitudes of supervisors. By being actively **ENGAGED**, supervisors can lead staff in a competency-enhancing process of behavior change that holds great promise for young children with challenging behavior and the professionals who serve them.

Note. This chapter is an abridged version of a more comprehensive manuscript under review at *Young Exceptional Children*. Requests for information should be addressed to Phillip S. Strain or Gail E. Joseph, Positive Early Learning Experiences Center, University of Colorado at Denver, 1380 Lawrence Street, Suite 600, Denver, CO 80204. E-mail: phil_strain@ceo.cudenver.edu or gail_joseph @ceo.cudenver.edu

Evidence-Based Peer Interaction Interventions for Preschool Children

4

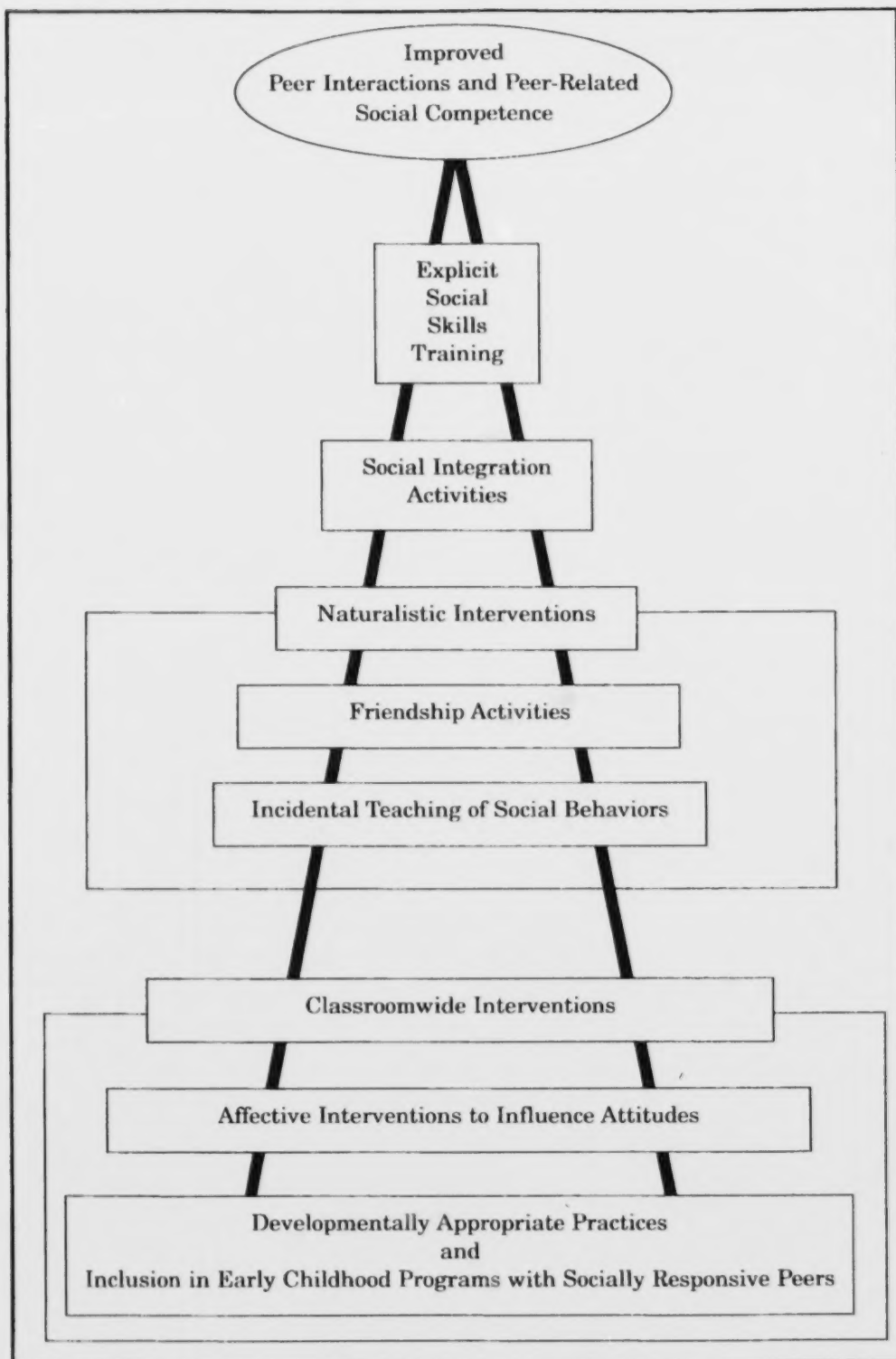
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Recently, Brown, Odom, and Conroy (2001) developed an intervention hierarchy for use by preschool teachers who are interested in employing evidence-based peer interaction interventions with their classes (see Figure 1). The decision-making process is sequential in that we encourage teachers to employ the least intrusive interaction interventions (i.e., interventions with minimal classroom changes and few additional resources). If an intervention is ineffective, we advocate that teachers employ another intervention, which might require additional planning and reasonable classroom changes. During intervention, we encourage teachers to evaluate children's peer interactions with direct observations to determine whether

Figure 1. Hierarchy for Promoting Young Children's Peer Interactions



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newly acquired social behavior is being practiced, maintained, and generalized to appropriate circumstances (see Utah State University, 1998; Wolery, 1996 for observation methods). The strategies for the intervention hierarchy will be discussed briefly in the remainder of the chapter (see Brown et al., 2001 for details).

Developmentally Appropriate Practices and Inclusive Early Childhood Programs

Educators have promulgated various guidelines for developmentally appropriate practices (DAP) in early childhood programs (e.g., Bredekamp & Copple, 1997). At the same time, teachers have established developmentally appropriate preschools, which have been arranged into learning centers (e.g., dramatic play, blocks, emergent literacy) with age-appropriate and interesting materials. In addition, responsive teachers have monitored and supported young children's engagement with materials and peers (e.g., Conroy, Langenbrunner, & Burleson, 1996).

During the last decade, early childhood educators have recognized that inclusion is an important dimension of DAP (e.g., Sandall, McLean, & Smith, 2000). Specifically, for preschoolers with disabilities, the presence of peers without disabilities may be important for providing models of competent behavior and socially responsive playmates. Moreover, the activities and social dynamics of many preschools can provide an ideal context for promoting peer interactions (cf. Brown et al., 2001). Unfortunately, researchers' analyses of inclusive preschools suggest that some children with disabilities may be at risk for being socially excluded (e.g., Brown, Odom, Li, & Zercher, 1999; Odom et al., 2002). Nevertheless, given the potential social dynamics and possibility for implementing peer interaction interventions, the establishment of DAP within inclusive early childhood programs is a critical intervention strategy. Indeed, DAP and inclusion may well be a foundation for any subsequent interventions to improve children's peer interactions.

Affective Interventions for Improving Young Children's Attitudes

In their discussion on children's attitudes Favazza and Odom (1997) recommended that practitioners make use of affective intervention—which includes story time with discussions about children with disabilities and play activities with peers with disabilities—for improving children's acceptance of peers with different abilities. They encouraged teachers to provide children with indirect experiences such as reading positive and realistic stories about children with disabilities, discussing people with disabilities, and displaying materials that depict people with disabilities in a positive manner. In addition, they suggested concurrent use of direct experiences, such as play activities with mixed ability groups, when implementing affective interventions (see Favazza, Roe, Phillipsen, & Kumar, 2000 for details). Nevertheless, children's understanding of peers' varying abilities may not be sufficient to promote interactions with children with disabilities. Even when teachers implement DAP, preschool inclusion, and affective interventions to improve peers' attitudes, some children continue to have restricted social interactions. In these instances, we recommend the use of one of the individualized peer interaction interventions discussed in the following paragraphs.

Incidental Teaching of Social Behavior

Various authorities (e.g., Brown, McEvoy, & Bishop, 1991) have advocated the use of incidental teaching to promote young children's peer interactions. Incidental teaching is differentiated from teacher-directed instruction because it is employed during "unstructured activities for brief periods of time and typically when children have shown an interest in or have been involved with materials, activities, or others" (Brown & Odom, 1995, p. 40; see Brown et al., 1991, for details). During incidental teaching episodes, teachers promote children's peer interactions by providing adult prompts for and models of social behavior or by encouraging peers to prompt and model appropriate social responses. For example, a teacher might encourage enhanced social behavior when a child physically comforts a peer who is upset by encouraging the child to also express

empathy verbally. Incidental teaching of social behavior is another opportunity for children to learn, practice, generalize, and elaborate on social behavior during common school activities. In addition, incidental teaching can be used to assess whether children require another individualized intervention to promote their social interactions (cf. Brown & Odom, 1995). That is, if a child fails to interact with peers during incidental teaching episodes with well-timed teacher encouragement to interact socially, then it is unlikely that they will socialize with peers in less structured activities. An absence of social responsiveness during incidental teaching episodes may indicate that more frequent incidental teaching of social behavior is needed or that other individualized peer interaction interventions may be necessary to promote social interactions.

Friendship Activities

Brown, Ragland, and Fox (1988) discussed the use of friendship activities (then known as "group socialization procedures") as another peer interaction intervention for preschoolers. Although friendship activities are conducted in groups during common classroom activities, teachers have successfully employed the approach to provide specific children with individualized intervention to improve peer interactions (e.g., Brown et al., 1988). Friendship activities differ from other peer interaction interventions in that teachers adapt young children's activities to promote interactions by embedding prosocial responding within common early childhood songs, games, and activities (see Brown, Ragland, & Bishop, 1989, for details). Antecedent and consequent strategies employed by teachers during friendship activities may include (a) encouragement of children's peer interactions, (b) peer models of social behavior with opportunities for observation of positive interactions, (c) rehearsal of prosocial behavior, and (d) acknowledgment of and praise for children's peer interactions.

Using friendship activities, teachers encourage children to make friendly statements, interact affectionately, compliment, smile, give one another encouragement, dance with one another, share, and engage in other forms of prosocial behavior. Furthermore, partici-

pating peers receive teacher support for their social responsiveness to classmates with peer interaction difficulties. Similar to incidental teaching of social behavior, friendship activities include additional teaching and learning opportunities for children to acquire, practice, generalize, and elaborate social behaviors during common classroom activities.

We encourage the continuation of incidental teaching after friendship activities are initiated (cf. Brown & Odom, 1995). Because friendship activities are teacher planned, incidental teaching of social behavior episodes may continue to provide an important bridge for practicing and generalizing children's social behavior during less teacher-directed social situations. Both incidental teaching of social behavior and friendship activities are peer interaction interventions that have been integrated easily into early childhood programs. Nevertheless, for some young children with social interaction difficulties, incidental teaching of social behavior and friendship activities might not be enough to promote their peer interactions. More intensive peer interaction intervention may be needed to improve children's interactions.

Social Integration Activities

Odom and colleagues (1988) have successfully used social integration activities (now known as PALS Centers) to increase children's interactions (see Chandler, 1998, for details). For example, Jenkins, Odom, and Speltz (1989) found that children who were randomly placed in social integration activities had more frequent peer interactions, higher language scores, and higher social competence ratings by teachers than comparable peers who were randomly placed in a cognitively oriented preschool program. During supportive interaction contexts, children with social interaction difficulties have (a) observed the socially competent play of peers, (b) participated directly in social interactions with children who have excellent play and peer interaction skills, and (c) established a positive history of peer interactions.

The effectiveness of social integration activities depends on careful teacher planning of activities so that the activities will enhance the

probability that positive social interactions will occur among children. Social integration activities traditionally have consisted of four basic components: (a) selecting children with interaction difficulties and socially responsive peers for the activities; (b) implementing activities in play areas for brief periods of time (i.e., 5–15 minutes); (c) selecting activities that provide multiple opportunities for positive play experiences and peer interaction; and (d) introducing play themes and systematically prompting children to socially interact with peers. Within the social integration activities, teachers select activities that provide multiple opportunities for social interaction. After organizing and introducing social integration activities, teachers withdraw partially from the play group and become monitors and supporters of children's play and peer interactions. If children fail to talk, share, play, or interact with peers, teachers adeptly suggest a play idea, comment on the play with another child, or if needed directly prompt peers to play with other children.

Given that the environmental arrangements (e.g., selection of activities and participants, sustained teacher support and monitoring) are the primary feature of the approach, teachers' participation to promote peer interactions should be used judiciously and decreased as children interact more. For some children with peer interaction difficulties, however, even more structured and teacher-directed peer interaction interventions than friendship and social integration activities may be required.

Explicit Social Skills Instruction

In their discussion on peer-based interventions, English, Goldstein, Shafer, and Kaczmarek (1997) recommended a type of explicit social skills instructional interventions for young children with limited peer interactions. Explicit social skills instruction is characterized by relatively intensive instruction on specific social strategies across the preschool day. English and colleagues implemented a buddy skills strategy to teach peers without disabilities a behavioral chain that includes moving in the proximity of children with peer interaction difficulties, saying children's names, and maintaining proximity while talking and playing with them. Teachers serve

as "buddy coaches" and encourage the children to "stay with your friend, play with your friend, and talk with your friend" (English et al., 1997, p. 233) during instructional sessions across daily activities (see English, Goldstein, Kaczmarek, & Shafer, 1996 for details).

English and colleagues have advocated use of this simple mnemonic of "stay, play, and talk" with your buddy in an instructional protocol that includes (a) discussions, (b) adult models, (c) guided practice, and (d) independent practice with adult feedback. After peer strategy-use practice sessions, dyadic training is conducted with peers without disabilities and children with peer interaction difficulties during three classroom activities (i.e., free play, snack, large group). The children with social interaction problems are also taught a modified social strategy of "stay and play" with your buddy to support peers' attempts to improve interactions.

Conclusion

We believe that teachers should be playful about promoting young children's peer-related social competence. Our proposed hierarchy, which includes a continuum of interventions, provides teachers with a practical decision-making process for improving young children's peer interactions in inclusive early childhood programs. While implementing the interventions of the hierarchy, teachers' observations are especially useful for evaluating whether a more intensive intervention might be needed to improve young children's social interactions. Moreover, as teachers promote more frequent and elaborate peer interactions, children's peer-related social competence might be enhanced. Ultimately, with improved social interactions and enhanced peer-related social competence, children should begin to establish enduring positive peer relationships and friendships.

We view the development of positive peer relations as a fundamental programmatic goal for early childhood educators. Along with many others, we feel strongly that young children with disabilities ought to receive services in inclusive early childhood programs that adhere to DAP guidelines. We also strongly believe that personnel

in those inclusive programs must be prepared to adapt their curricular practices and, when necessary, to use a variety of intervention strategies to ensure that children's individual social competence needs are being addressed effectively with evidence-based peer interaction interventions (cf. Brown et al., 2001).

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5

Reducing Challenging Behaviors in Young Children

Effectiveness of Parent and Teacher Implementation

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With increasing numbers of young children engaging in challenging behaviors (CB), teachers, parents, and others have expressed concern and called for more concerted efforts to address the problem. Recently two national projects were funded to explore the use of evidenced-based treatments for CB in youngsters (i.e., Center on the Social and Emotional Foundations for Early Learning and Center for Evidence-Based Practice: Young Children with Challenging Behavior).

Fundamental to both projects is the use of positive behavior supports (PBS; Horner, 2000; Sugai & Horner, 2002). PBS is an empirically validated approach comprising a functional behavioral assessment (FBA), a reinforcement-based intervention linked to

assessment results, intervention to increase the child's skills in the area of communication and adaptive behaviors, and ongoing data collection and progress monitoring. An FBA typically comprises several steps (O'Neill, Horner, Albin, Storey, & Sprague 1997):

1. Indirect assessments (e.g., parent interviews and rating scales).
2. Direct assessments (e.g., ABC analysis, descriptive analysis, scatterplot).
3. Functional analysis (Iwata, Dorsey, Slifer, & Bauman, 1994).
4. Summary statement and/or identification of the function(s) of behavior.

The reinforcement-based intervention is often directly associated or linked with the summary statement and/or function of behavior. For example, if the function of the child's behavior is to obtain attention, then the reinforcement used in the intervention usually involves access to attention. The intervention may include plans for increasing the child's skills, such as asking for attention in appropriate ways during appropriate times. Regardless of the exact strategies, there is growing attention being given to the role played by parents and teachers in the intervention process.

Various authorities argue that extensive training is necessary for parents and teachers to master the skills necessary to implement FBA and reinforcement-based interventions (Sailor et al., 2000). Others suggest that the current importance attached to FBA and PBS has exceeded our actual knowledge base (Neilsen & McEvoy, 2001; Nelson, Mathur, & Rutherford, 1999), which poses major challenges to training others effectively to address CB.

Recently, Keith and Olive (2002) conducted a review of the literature on FBA and reinforcement-based interventions for children under the age of 6. They identified 25 studies in which 68 children participated in single-subject studies, and 153 children participated in large-group studies. The majority of children were identified with severe or profound mental retardation ($N = 22$), autism ($N = 19$), or multiple disabilities ($N = 16$). All of the researchers relied on FBA

procedures, and 18 completed some variation of a functional analysis. Two thirds of the studies ($N = 17$) reported clear changes in child CB based on three measures. Of the 18 studies reporting prosocial behaviors, 13 reported substantial increases in new or alternative behaviors.

Comparison of the Results of Teacher-Implemented, Parent-Implemented, and Researcher-Implemented Interventions on Challenging Behaviors

Viewed together, the results of these studies are impressive. However, one hidden aspect of this review is that many of the intervention agents in the studies were researchers or highly trained behavior therapists ($N = 11$). Parents ($N = 3$) and teachers ($N = 6$) served as interventionists rather infrequently. Therefore, we sought to compare the results of teacher-implemented, parent-implemented, and researcher-implemented interventions on challenging behavior of young children. There were two overarching questions: What are the effects of FBA and reinforcement-based interventions on CB, communication, and other adaptive skills? Is one implementer more effective at changing behaviors when compared to another?

What follows is a description of our procedures and the results of our analysis. We discuss the changes in CB and prosocial skills as they relate to interventionists and posit strategies for future intervention endeavors.

Analysis Procedures and Results

For the purposes of our analysis, we assigned a code to each study based on intervention agent (e.g., parent, teacher, researcher, combination). We analyzed the following outcomes by intervention agent: (a) decrease in challenging behavior, (b) increase in child prosocial skills, and (c) fidelity of implementation (e.g., how well the intervention was implemented).

Changes in challenging behaviors (CB) were measured by calculating the percentage of nonoverlapping data points (PND), a strategy advocated by Scruggs, Mastropieri, and Casto (1987). We calculated the percentage of nonoverlapping data points for CB by counting the number of intervention data points that were lower than the lowest point during the baseline condition of the study. According to Scruggs and colleagues, a higher PND suggests stronger intervention effects. For example, a PND of 80% means that 8 of 10 intervention points were lower than the lowest baseline point. The PND for prosocial skills was calculated by counting the number of intervention points that were higher than the highest baseline point.

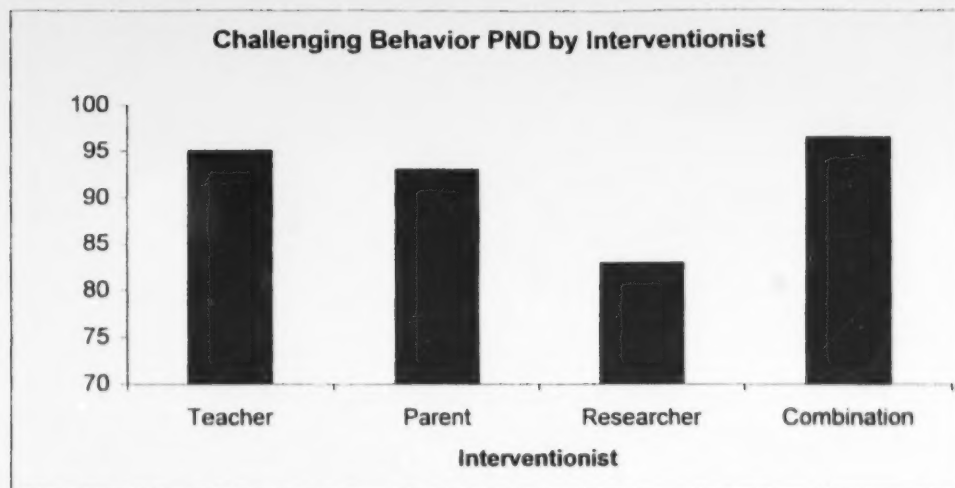
As seen in Figure 1, the average PND for CB in the studies we reviewed ranged from 83% to 96.5%. Interventions implemented by researchers and behavior therapists received the lowest average PND, while interventions implemented by a combination of interventionists resulted in the highest averages.

The average PND for social skills is shown in Figure 2. Interventions implemented by classroom teachers resulted in the highest PND scores ($M = 100\%$), while interventions implemented by a combination of interventionists received the lowest PND scores ($M = 40\%$). As for fidelity of treatment, we found data addressing important aspect of intervention in only 6 studies. PND was calculated in 2 studies. Visual analyses (e.g., eyeballing the graph) were completed on all 6 studies. Based on our review, we rated all studies with high degrees of implementation.

Discussion

As Keith and Olive (2002) reported, the 25 studies on challenging behavior of young children demonstrated positive changes in behavior. Furthermore, all studies documented concomitant increases in prosocial skills ($N = 18$). Upon first glance, we were somewhat surprised by the large number of studies that reported the use of researchers and behavior therapists as interventionists and found it interesting that results were strongest in studies in which there was a combination of implementers rather than a single interventionist. In direct contrast, the strongest results were obtained in the

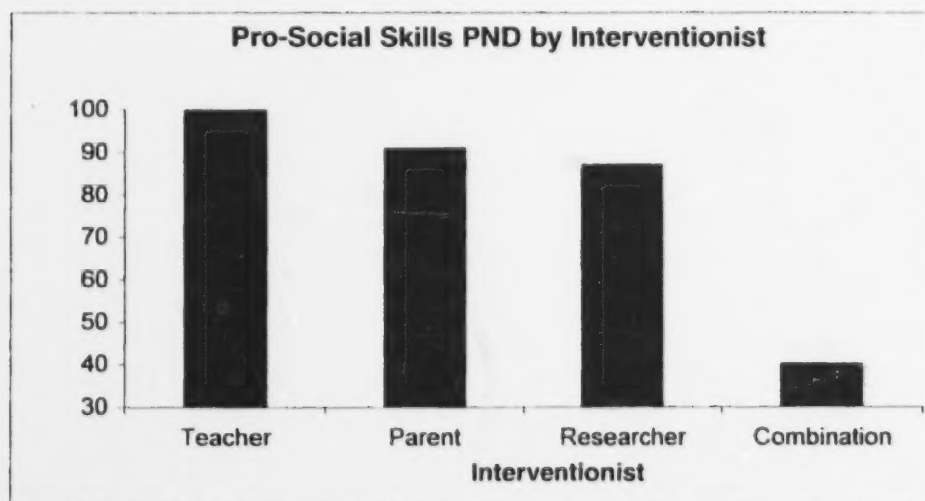
Figure 1. Average Challenging Behavior PND by Interventionist



area of prosocial skills in the studies in which there was a single interventionist, with teachers producing the highest outcome.

The results of these studies should be interpreted somewhat cautiously, in that each has some limitations. For example, we did not find significant differences between groups on any child outcomes. We chose to report mean changes in behavior only. For example, we described the results of previously published studies with a focus on

Figure 2. Average Pro-Social Skills PND by Interventionist



the implementer as it related to child outcomes. Finally, it is reasonable to assume that only studies with strong outcomes were accepted for publication, thus limiting our ability to determine the full range of child outcomes.

Despite the various shortcomings, the results of our review appear to support the use of multiple change agents (Stokes & Baer, 1977). Larger decreases in CB were observed in studies in which there was more than one interventionist. While these same outcomes were not evidenced in the area of prosocial skills, we believe this may be attributed to the small number of studies using multiple interventionists that simultaneously targeted p-social skills ($N = 3$).

With only 6 studies reporting fidelity of implementation, we cannot accurately determine how well the various interventions were implemented. However, we did find that when parents and teachers served as intervention agents, large decreases in CB were reported ($M = 95\%$ and $M = 93\%$, respectively). Therefore, it seems reasonable to continue to examine strategies for training a variety of implementers, including teachers and parents, as well as documenting the effects of their implementation.

Conclusion

There is mounting concern over the growing number of young children who manifest a wide range of challenging behavior in various settings. In recognition of the tremendous importance being attached to early intervention and the fact that these children spend the majority of time in the home or at school, casting teachers and parents in the role of behavior change agent makes good sense. The various strategies discussed in several other chapters seem especially well suited to that effort.

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6

An Examination of Early Intervention/ Prevention Research with Children at Risk of Emotional and Behavioral Disorders

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Children's behavior problems pose numerous challenges to families, schools, and society. If left untreated, behavior problems typically multiply, intensify, and diversify over time (Campbell & Ewing, 1990) and put the child at risk for academic failure, social isolation, and peer rejection (Dodge, 1993; Walker & Severson, 1990). Given the serious, pervasive, and long-lasting effects of behavior problems,

early intervention to prevent the development of emotional or behavioral disorders (E/BD) is a logical alternative to introducing treatment after the behavior is well established (e.g., Kaiser & Hester, 1997; Kauffman, 1999; Kazdin, 1993; Webster-Stratton, 2000).

Notwithstanding the support for early intervention, it is not easy to specify precisely what constitutes a high-quality program of early intervention (Bailey, Aytch, Odom, Symons, & Wolery, 1999). Current conceptualizations reflect the fact that early intervention is not a single entity, but rather a complex series of interactions and transactions that together serve to nurture and enhance the development of the child over time (Bronfenbrenner & Morris, 1998; Hester & Kaiser, 1998; Oberg, Bertrand, & Muret-Wagstaff, 1999). Child characteristics, parent characteristics, and the dynamics of the interaction between the parent and child, along with economic, cultural, and social forces (Conduct Problems Prevention Research Group [CPPRG], 1992), impact the development of E/BD in children. Furthermore, once a child enters childcare settings and/or school, other variables influence the child's behavior as well. These variables include the child's developmental and social communicative abilities, the quality of the classroom (i.e., the amount of teacher training and experience), the nature of teacher/child interactions, and the relationship between the teacher and parents. Thus, the long-term efficacy of early intervention is largely dependent on the continuity and consistency of interaction across persons, settings, and time.

Given the emphasis and support for early intervention with children at risk of developing E/BD, our intent is to discuss critical elements of early intervention and how these intervention components are implemented. In a recent review of the literature (Hester, Baltodano, Gable, Tonelson, & Hendrickson, 2003), we identified a number of methodological issues critical to understanding the variation found within early intervention research. The degree of variability in the methodology across studies and the absence of detailed descriptions of procedures were particularly evident in three areas: (a) identifying the target population, (b) issues in

implementation, and (c) longitudinal outcomes. Accordingly, the following discussion focuses on those areas and suggests possible ways to strengthen our understanding of early intervention for the prevention of E/BD.

Identifying the Target Population

If intervention results are to be informative, the way that target populations are identified must be taken into account (Chambless & Hollon, 1998). Major areas of concern regarding participant selection include variability in terminology used to describe participants, variability among primary informants, and variability in assessment measures (Hester et al., 2003). In addition, there has been little agreement on the definition of E/BD (Peterson, 1995) and virtually no agreement or consistency with regard to children that are targeted for early intervention and prevention efforts in the area of E/BD. The literature from the past decade reflects a wide variety of terms to identify and describe study participants, including, but not limited to, *at risk*, *high risk*, *conduct disorder*, *emotional disturbance*, *problem behavior*, *disruptive behavior*, and *E/BD*. It is this discordance in selection criteria across studies that poses a problem in terms of assessing the efficacy of early intervention and prevention efforts. The resulting heterogeneity among participants confounds efforts to replicate intervention efforts, since intervention efficacy applies only to those studies using the same selection criteria (Sidman, 1960).

Along with the importance of consistent terminology in establishing a reliable target population is the issue of consistency regarding the source of information used to identify the target population. The use of informants (e.g., parent, teacher, peer, target child) is the most common method to determine the presence or absence of, and establish the severity of, specific problem behaviors in young children. Studies that rely on informant accounts contain considerable variability regarding individual child behavior, largely due to the subjective nature of these accounts, often by different informants at different points in time. For example, teachers with more teaching

experience tend to identify fewer children with behavior problems (Kaiser, Cai, Hancock, & Foster, 2002). It follows that in addition to informant data it would be useful to obtain direct observation measures. Although this would be more costly in terms of time and energy, it would provide more objective data and a broader understanding of child behavior in multiple contexts.

In our review, we also found little consistency with regard to the measures used to determine the target population (Hester et al., 2003). Researchers have used standardized and nonstandardized instruments, adaptations and subscales of standardized measures, and weighted/averaged standardized measures to identify participants. In addition, we found a number of studies that relied on various environmental characteristics, such as socioeconomic status and crime statistics, to determine the at risk or high risk status of children. This variability in measurement makes it difficult to replicate research and suggests that the results of any particular study might be applicable only to those participants specifically identified in the study. Thus, to achieve reliable, effective interventions, it is essential that we develop standardized terminology and measures to identify the target population precisely (August, Realmuto, Crosby, & MacDonald, 1995; Ayoub & Jacewitz, 1982). The inclusion of direct observational measures could yield far more reliable information (Bailey et al., 1998) and should be the mainstay of early intervention research.

Implementation Issues

The implementation of an intervention plan poses challenges to both researchers and those working in applied settings. Among the factors that influence treatment outcomes are the age of the child at the onset of intervention, the type of intervention being implemented, and the degree to which the intervention was implemented as designed (Ikeda, Simon, & Swahn, 2001; Prinz & Miller, 1991). Not surprisingly, there is a great deal of inconsistency in the literature in these areas.

Efforts to evaluate intervention outcomes have indicated that the younger the child is at the onset of intervention, the more efficacious is the program (Guralnick, 1991; Kamps & Tankersley, 1996). However, the majority of children with or at risk of developing E/BD do not receive services until later on in elementary school (Forness et al., 2000; Hester et al., 2003). In echoing the thoughts of our colleagues in previous chapters, it seems essential that we emphasize prevention/intervention efforts in early childhood, as it is during that developmental period that children are most likely to demonstrate positive outcomes and maintain those outcomes throughout their lives (Bailey et al., 1999).

Another issue in implementation is the complexity of the early intervention effort. Emotional or behavioral disorders typically develop in the context of multiple determinants. Any model of intervention, therefore, must take into account not only the child, but also the dynamics of interactions between parent and child as well as others (e.g., teachers/peers/other adults) with whom the child interacts over time. Our review (Hester et al., 2003) and the work of others support the increasing emphasis on multidimensional intervention (e.g., CPPRG, 2002; Webster-Stratton & Hammond, 1997). On the other hand, it is the complexity of these interventions that makes it difficult to identify the most salient aspects of a particular intervention. As such, various measures of treatment fidelity have become increasingly important to both successful treatment and reporting outcomes to others (Tremblay, LeMarquand, & Vitaro, 1999).

In assessing the research, readers seek assurance that the effects of treatment (regardless of directionality) stem from the intervention. Failure to deliver all components of an intervention according to the intervention protocol (i.e., content fidelity) or failure to deliver the intervention as designed throughout the intervention period (i.e., process fidelity) can confound those effects. The absence of treatment fidelity reports makes it extremely difficult to judge whether standardization in content or implementation of an intervention was assessed or whether this information simply was not reported. Reporting of research that does not address adequately the fidelity

with which the intervention was conducted makes it difficult to determine whether nonsignificant outcomes are a result of an ineffective intervention or a result of the failure to implement the intervention as it was intended (Skiba & Casey, 1985). Accordingly, it is incumbent on researchers to demonstrate to readers that their interventions were implemented with satisfactory levels of fidelity.

Longitudinal Outcomes

In prevention and intervention research it is important to know whether various treatment effects differ over time and whether treatment has an enduring effect on child behavior (Chambless & Hollon, 1998). By assessing child outcomes longitudinally, we are able to contribute more substantially to the prevention/intervention literature. In that long-term assessment of treatment effects poses special challenges to researchers (Tremblay, Pagani-Kurtz, Masse, Vitaro, & Pihl, 1995), it is not surprising that the majority of studies with young children have no follow-up data (Kazdin, 1993). Although researchers have begun to incorporate these assessments, a number of early intervention efforts contain only limited follow-up data (less than 1 year; Hester et al., 2003). Many times, follow-up data are difficult to interpret in that researchers are not always able to account for all intervening variables that might affect behavior. Finally, problems surrounding participant retention over time are common and limit the validity of treatment effects.

Few of the studies conducted in the area of early intervention have addressed the maintenance and generalization of positive changes in child behavior (Bailey et al., 1999). The burden of intervention effectiveness usually rests with the child; that is, child behavior is the major focus of postintervention assessment. Absent are data on the environmental context(s) and the individuals with whom the child interacts and the intensity and quality of those interactions when follow-up data are collected. Because of the multiple factors that contribute to E/BD, if a child has support in one or more domains, he or she may be protected from some of the risk factors (Coie et al., 1993). For example, if teachers and personnel in educa-

tional environments were trained to support child learning, a corridor for prevention intervention would be available for all children during their earliest school experiences. As Kauffman (1999) suggested, if early intervention is to be successful, it is imperative that we provide young children who are at risk with environments that both directly teach and actively support adaptive behaviors. Our review underscores the need for multidimensional interventions, interventions that incorporate all characteristics of children at risk and the multiple settings in which they live and learn.

Conclusion

Our review raises a number of questions regarding research on early intervention. It causes us to reflect on those aspects of empirical inquiry that tend to hinder the very work we seek to accomplish. In particular, greater benefits likely would accrue from standardization of participant selection criteria and measurement tools, use of protocols to ensure treatment fidelity, and the direct observation assessment of significant child interactions over time (e.g., parents, teachers, peers), and their social/environmental context(s). There are also implications for the ways that teachers are trained to intervene in the classroom and to support the continuity of previous interventions. We trust that future research efforts will allow us to identify issues associated with effective intervention more precisely and to determine which variables work best, singularly or in a synergistic fashion, to ameliorate risk factors among young children.

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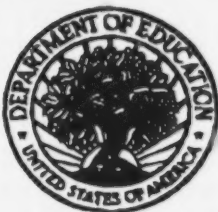
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